

Claims

[1] A single-phase motor having:

a stator including a stator iron core formed by laminating a plurality of electromagnetic steel sheets and provided with a slot and single-phase two-pole distributed windings composed of a main winding and an auxiliary winding contained in the slot; and

a rotor placed through a gap on an inner circumference of the stator, the single-phase motor comprising

at least five notches each having a roughly straight lined shape on an outer circumference of the stator iron core, so that a quadrangle is formed by straight lines including four notches out of the at least five notches.

[2] The single-phase motor of claim 1, wherein the single-phase motor comprises six notches, so that a rectangle or a square is formed by straight lines including four notches out of the six notches.

[3] The single-phase motor of claim 1, wherein the stator iron core is provided with a plurality of slots, among a plurality of slots, at an outer circumferential side of which a notch is not placed, at least one slot is made to have a deeper depth in a radial direction than a slot, at an outer circumferential side of which a notch is placed, so that a large slot and a small slot are formed.

[4] The single-phase motor of claim 3, wherein winding to be contained in the large slot has a higher cross section ratio for a slot area than winding to be contained in the small slot.

[5] The single-phase motor of claim 3, wherein an outer winding of a concentric main winding is inserted in the large slot.

[6] The single-phase motor of claim 1, wherein, in case of inserting windings, the main winding is inserted after the auxiliary winding is inserted to the slot.

[7] A hermetic compressor comprising the single-phase motor of claim 1.

[8] A single-phase motor having:

a stator including a stator iron core formed by laminating a plurality of electromagnetic steel sheets and provided with a slot between stator teeth, and

single-phase two-pole distributed windings composed of a main winding and an auxiliary winding contained in the slot; and

a rotor placed through a gap on an inner circumference of the stator,
the single-phase motor comprising

5 a notch having an approximately same width as the stator teeth on an outer
circumference of the stator iron core.

[9] A hermetic compressor comprising the single-phase motor of claim 8.